

AMENDMENT TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for protecting a thiol group in a protein having a free cysteine residue and wherein the protein is produced by using a cell cultured in a serum-free medium, which comprises comprising adding a compound which has a disulfide bond in the molecule and exerts ~~substantially~~ no influence on the activity of the protein.
2. (Withdrawn) A method for inhibiting a polymerization reaction of proteins via thiol groups, which comprises protecting a thiol group in a protein having a free cysteine residue by adding a compound which has a disulfide bond in the molecule and exerts substantially no influence on the activity of the protein.
3. (Withdrawn) A method for inhibiting modification of a protein, which comprises protecting a thiol group in a protein having a free cysteine residue by adding a compound which has a disulfide bond in the molecule and exerts substantially no influence on the activity of the protein.
4. (Withdrawn) A method for inhibiting an exchange reaction of a thiol group in a protein with a disulfide bond formed in the molecule or between the molecules of the protein, which comprises protecting a thiol group in a protein having a free cysteine residue by adding a compound which has a disulfide bond in the molecule and exerts substantially no influence on the activity of the protein.

5. (Currently Amended) The method according to claim 1, wherein the compound which has a disulfide bond in the molecule and exerts ~~substantially~~ no influence on the activity of the protein is cystine, homocystine, lipoic acid or oxidized glutathione.

6. (Currently Amended) The method according to claim 1, wherein the compound which has a disulfide bond in the molecule and exerts ~~substantially~~ no influence on the activity of the protein is cystine.

7. (Currently Amended) A method for protecting a thiol group in a protein having a free cysteine residue, which comprises adding a compound which has a disulfide bond in the molecule and exerts ~~substantially~~ no influence on the activity of the protein simultaneously or separately from a compound which has a thiol group in the molecule and exerts ~~substantially~~ no influence on the activity of the protein.

8. (Currently Amended) The method according to claim 7, wherein the compound which has a thiol group in the molecule and exerts ~~substantially~~ no influence on the activity of the protein is cysteine, homocysteine, glutathione or dihydrolipoic acid.

9. (Currently Amended) The method according to claim 7, wherein the compound which has a thiol group in the molecule and exerts ~~substantially~~ no influence on the activity of the protein is cysteine.

10. (Previously Presented) The method according to claim 1, wherein the protein is a recombinant protein.

11. (Previously Presented) The method according to claim 1, wherein the protein is an antibody.
12. (Original) The method according to claim 11, wherein the antibody is an $F(ab')_2$ antibody.
13. (Previously Presented) The method according to claim 11, wherein the antibody is a monoclonal antibody.
14. (Original) The method according to claim 13, wherein the monoclonal antibody has a thiol group in its variable region.
15. (Previously Presented) The method according to claim 13, wherein the monoclonal antibody has a free cysteine residue in its variable region.
16. (Previously Presented) The method according to claim 13, wherein the monoclonal antibody comprises the amino acid sequences represented by SEQ ID NOs:1, 2 and 3 in the Sequence Listing in its heavy chain hypervariable region, and the amino acid sequences represented by SEQ ID NOs:4, 5 and 6 in the Sequence Listing in its light chain hypervariable region.
17. (Previously Presented) The method according to claim 13, wherein the monoclonal antibody comprises a heavy chain variable region comprising the amino acid sequence represented by SEQ ID NO:7 in the Sequence Listing and a light chain variable region containing the amino acid sequence represented by SEQ ID NO:8 in the Sequence Listing.
18. (Canceled)

19. (Withdrawn – Currently Amended) A protein which is obtainable by the method according to ~~claim 18~~ claim 1.

20. (Withdrawn) A pharmaceutical composition which comprises the protein according to claim 19 and a pharmaceutically acceptable carrier.

21. (Withdrawn) The pharmaceutical composition according to claim 20, which is an antitumor agent.